

CLASSIFIED MESSAGE

ROUTING

ORIG: [REDACTED] ad
 UNIT: MD/OSA-DD/S&T
 EXT: 5709
 DATE: 30 AUGUST 1963

S-E-C-R-E-T

1	MD/OSA	9
2	D/FA/OSA	10
3	C/PS/OSA	11
4	OD/OSA	12
5	OD/OSA	13
6	OD/OSA	14
7	CD/OSA	15
8	RB/OSA	16

TO: [REDACTED]
 FROM: [REDACTED]
 CONF: [REDACTED]
 INFO: [REDACTED]

OSA 1-13

John

	DEFERRED	PRIORITY	INITIALS
X	ROUTINE	OPERATIONAL IMMEDIATE	INITIALS

OUT 17855X1

TO

INFO

CITE

IDEALIST

1. AM CONSIDERING A PROPOSAL FROM [REDACTED] GENERATED BY FOG
 REQUIREMENT TO MODIFY THE R-44 SEXTANT FOR IMPROVED ACCURACY AND
 RELIABILITY. COST OF MOD WILL BE QUITE LARGE. WOULD APPRECIATE
 YOUR COMMENT ON ANY OPERATIONAL OR MAINTENANCE PROBLEMS YOU ARE
 HAVING WHICH WOULD JUSTIFY THE NEED FOR US TO PARTICIPATE IN PRODUCT
 IMPROVEMENT THIS ITEM. YOUR USAGE FACTOR WILL ALSO HAVE A BEARING
 ON THIS JUSTIFICATION.

2. ACCURACY IMPROVEMENTS WOULD ENCOMPASS:

- A. MORE PRECISE ELEVATION GEAR TRAIN USING STAINLESS STEEL GEAR IN LIEU OF BRASS.
- B. NEW BEARINGS OF CLOSER TOLERANCE.
- C. SMALLER BUBBLE WITH WANDER AND SIZE CHANGE ELIMINATED.
- D. IMPROVED AVERAGER WITH ELIMINATION OF CABLE BACKLASH.

3. RELIABILITY AND MAINTENANCE IMPROVEMENTS WOULD ENCOMPASS:

- A. BUBBLE SHELF LEVELLING.

THE BUBBLE CAN BE LEVELLED ON THE BENCH AND LOCKED IN POSITION

COORDINATING OFFICERS

S-E-C-R-E-T

RELEASING OFFICER

GROUP 1
Excluded from automatic
downgrading and
declassification

AUTHENTICATING OFFICER

REPRODUCTION BY OTHER THAN THE ISSUING OFFICE IS PROHIBITED.

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ROUTING			
1		9	
2		10	
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4		12	
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8		16	
APPROVED	DEFERRED	PRIORITY	INITIALS
	ROUTINE	OPERATIONAL IMMEDIATE	INITIALS

TO :

FROM:

CONF:

INFO :

PAGE TWO

OUT 17899

TO

INFO

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REQUIRING ONLY THAT IT BE CENTERED WHEN CALIBRATING.

B. NEW HOUSINGS.

THIS WILL PERMIT EASIER AND FASTER ALIGNMENT THROUGH SEPARATION
OF UPPER AND LOWER HOUSINGS.

C. BUBBLE LIGHTING.

NEW MODULAR ASSEMBLY CAN BE REPLACED IN AIRCRAFT.

D. NEW BUBBLE.

READJUSTMENTS FOR SIZE AND THERMOSTAT REPLACEMENT WILL BE
MINIMIZED.

4. OPERATOR PRESENTATION IMPROVEMENTS WOULD INCLUDE:

A. INSTALLATION OF A PELLICLE TO REPLACE THE BEAM SPLITTER.
THIS WILL ELIMINATE GHOST IMAGES.

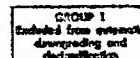
B. SMALLER BUBBLE. THIS WILL MAKE IT EASIER FOR PILOT TO
CENTER THE CELESTIAL BODY AND KEEP IT THERE THROUGHOUT OBSERVA-
TION PERIOD.

C. BUBBLE LIGHTING. SHARPER ILLUMINATION WILL ENABLE MORE
ACCURATE PILOT OBSERVATION.

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1	9
2	10
3	11
4	12
5	13
6	14
7	15
8	16

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FROM:

CONF:

INFO :

PAGE THREE

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	ROUTINE	OPERATIONAL IMMEDIATE	INITIALS

OUT 17899

TO

INFO

CITE

D. BETTER QUALITY IMAGE. ALL OPTICAL ELEMENTS WILL HAVE NEW EFFICIENT COATINGS WHICH WILL INCREASE TRANSMISSION AND IMAGE QUALITY THROUGH THE SYSTEM.

5. IN ADDITION TO THE ABOVE, A SKY COMPASS CAN BE INCORPORATED IN THE SEXTANT TO GIVE ADDED HEADING COVERAGE DURING THOSE PERIODS WHEN CELESTIAL BODIES ARE NOT AVAILABLE FOR OBSERVATION. THIS WOULD BE OF PRINCIPAL BENEFIT DURING TWILIGHT PERIODS IN NORTHERN LATITUDES.

6. PLEASE SUBMIT YOUR COMMENTS BY 10 SEPTEMBER 1963.

END OF MESSAGE

C/ OD/OSA

25X1

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